```
Qy        361 EDDDKLEQIRKDYTSGAMLTGELKKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLS 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        408 EDDDKLEQIRKDYTSGAMLTGELKKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLS 467

Qy        421 FDFQ 424
              ||||
Db        468 FDFQ 471


RESULT 7
AAB58220
ID   AAB58220 standard; Protein; 475 AA.
XX
AC   AAB58220;
XX
DT   14-MAR-2001  (first entry)
XX
DE   Lung cancer associated polypeptide sequence SEQ ID 558.
XX
KW   Human; lung cancer associated protein; neuroprotective; cytostatic;
KW   cardioactive; immunomodulatory; muscular active; vulnerary;
KW   gastrointestinal; nephrotropic; antiinfective; gynecological;
KW   antibacterial; diagnosis; neural disorder; immune disorder; reproductive;
KW   proliferative disorder; wound healing; infectious disease.
XX
OS   Homo sapiens.
XX
PN   WO200055180-A2.
XX
PD   21-SEP-2000.
XX
PF   08-MAR-2000; 2000WO-US05918.
XX
PR   12-MAR-1999;   99US-0124270.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (ROSE/) ROSEN C A.
XX
PI   Ruben SM;
XX
DR   WPI; 2000-587514/55.
DR   N-PSDB; AAF18096.
XX
PT   Lung cancer associated gene sequences, referred to as lung cancer
PT   antigens, useful for treatment, prevention, and diagnosis of disorders
PT   such as lung cancer -
XX
PS   Claim 11; Page 1052-1053; 1425pp; English.
XX
CC   Polynucleotide sequences AAF17982 - AAF18424 encode human lung cancer
CC   associated proteins represented in AAB58106 - AAB58548. Lung cancer
CC   associated proteins and polynucleotide sequences, their agonists, and
CC   antagonists may have neuroprotective; cytostatic; cardioactive;
CC   immunomodulatory; muscular active general; vulnerary; gastrointestinal
CC   general; nephrotropic; antiinfective; gynecological; or antibacterial
CC   activity. The invention also includes antibodies specific for the
CC   protein or polynucleotide sequences. The lung cancer associated
CC   polynucleotide sequences may be used for detection of lung cancer,
CC   chromosome identification, as chromosome markers, and for numerous other
CC   diagnostic or research purposes. The proteins may be used to treat
CC   disorders such as neural, immune, muscular, reproductive,
CC   gastrointestinal, pulmonary, cardiovascular, renal, and proliferative
CC   disorders. The proteins may also be used in the treatment of wounds and
CC   infectious diseases. Polynucleotide sequences AAF18425 - AAF18433 and
CC   peptide AAB58549 are used in the course of the invention for the
CC   identification and characterisation of the polynucleotide and protein
CC   sequences.
XX
SQ   Sequence   475 AA;

  Query Match           99.3%;  Score 2231;  DB 21;  Length 475;
  Best Local Similarity 99.5%;  Pred. No. 2.7e-220;
  Matches  422;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MSYKAAAGEDYKADCPPGNPAPTSNHGPDATEAEEDFVDPWTVQTSSAKGIDYDKLIVRF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         52 MSYKAAAGEDYKADCPPGNPAPTSNHGPDATEAEEDFVDPWTVQTSSAKGIDYDKLIVRF 111

Qy         61 GSSKIDKELINRIERATGQRPHHFLRRGIFFSHRDMNQVLDAYENKKPFYLYTGRGPSSE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        112 GSSKIDKELINRIERATGQRPHHFLRRGIFFSHRDMNQVLDAYENKKPFYLYTGRGPSSE 171

Qy        121 AMHVGHLIPFIFTKWLQDVFNVPLVIQMTDDEKYLWKDLTLDQAYGDAVENAKDIIACGF 180
              ||||||||||||||||||||||||||||||||||||||||||||  ||||||||||||||
Db        172 AMHVGHLIPFIFTKWLQDVFNVPLVIQMTDDEKYLWKDLTLDQAYSYAVENAKDIIACGF 231

Qy        181 DINKTFIFSDLDYMGMSSGFYKNVVKIQKHVTFNQVKGIFGFTDSDCIGKISFPAIQAAP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        232 DINKTFIFSDLDYMGMSSGFYKNVVKIQKHVTFNQVKGIFGFTDSDCIGKISFPAIQAAP 291

Qy        241 SFSNSFPQIFRDRTDIQCLIPCAIDQDPYFRMTRDVAPRIGYPKPALLHSTFFPALQGAQ 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        292 SFSNSFPQIFRDRTDIQCLIPCAIDQDPYFRMTRDVAPRIGYPKPALLHSTFFPALQGAQ 351

Qy        301 TKMSASDPNSSIFLTDTAKQIKTKVNKHAFSGGRDTIEEHRQFGGNCDVDVSFMYLTFFL 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        352 TKMSASDPNSSIFLTDTAKQIKTKVNKHAFSGGRDTIEEHRQFGGNCDVDVSFMYLTFFL 411

Qy        361 EDDDKLEQIRKDYTSGAMLTGELKKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLS 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        412 EDDDKLEQIRKDYTSGAMLTGELKKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLS 471

Qy        421 FDFQ 424
              ||||
Db        472 FDFQ 475


RESULT 8
AAY05372
ID   AAY05372 standard; Protein; 471 AA.
XX
AC   AAY05372;
XX
DT   30-JUN-1999  (first entry)
XX
DE   Human HCMV inducible gene protein, SEQ ID NO 12.
XX
KW   HCMV inducible gene; cig; human; human cytomegalovirus; interferon;
KW   anti-viral therapy; anti-HCMV therapy; detection; diagnosis;
KW   drug screening.
XX
OS   Homo sapiens.
XX
PN   WO9913075-A2.
XX
PD   18-MAR-1999.
XX
PF   08-SEP-1998;   98WO-US18638.
XX
PR   22-SEP-1997;   97US-0059725.
PR   08-SEP-1997;   97US-0058180.
XX
PA   (UYPR-) UNIV PRINCETON.
XX
PI   Cong J,  Schenk T,  Zhu H;
XX
DR   WPI; 1999-243729/20.
DR   N-PSDB; AAX33942.
XX
PT   New isolated human genes
XX
PS   Claim 3; Page 112-114; 184pp; English.
XX
CC   This sequence is encoded by a human gene of the invention, and is induced
CC   to express by both HCMV and interferon (IFN), designated HCMV-inducible
```

CC genes (cig or cigs). The invention also relates to genes that are
CC repressed in the presence of HCMV infection, designated HCMV-repressible
CC genes (crg or crgs). The products can be used to obtain agents which can
CC be used for anti-viral therapy, particularly anti-HCMV therapy. They can
CC also be used for the development of drugs that would allow for higher
CC dosage IFN treatments without the concomitant toxicity normally
CC associated with administering high levels of IFN. The products can also
CC be used for detection, diagnosis and drug screening.
XX
SQ Sequence 471 AA;

Query Match 99.1%; Score 2226; DB 20; Length 471;
Best Local Similarity 99.3%; Pred. No. 8.8e-220;
Matches 421; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```
Qy          1 MSYKAAAGEDYKADCPPGNPAPTSNHGPDATEAEEDFVDPWTVQTSSAKGIDYDKLIVRF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         48 MSYKAAAGEDYKADCPPGNPAPTSNHGPDATEAEEDFVDPWTVQTSSAKGIDYDKLIVRF 107

Qy         61 GSSKIDKELINRIERATGQRPHHFLRRGIFFSHRDMNQVLDAYENKKPFYLYTGRGPSSE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        108 GSSKIDKELINRIERATGQRPHHFLRRGIFFSHRDMNQVLDAYENKKPFYLYTGRGPSSE 167

Qy        121 AMHVGHLIPFIFTKWLQDVFNVPLVIQMTDDEKYLWKDLTLDQAYGDAVENAKDIIACGF 180
              |||||||||||||||||||||||||||||||||||||||||||  ||||||||||||||
Db        168 AMHVGHLIPFIFTKWLQDVFNVPLVIQMTDDEKYLWKDLTLDQAYSYAVENAKDIIACGF 227

Qy        181 DINKTFIFSDLDYMGMSSGFYKNVVKIQKHVTFNQVKGIFGFTDSDCIGKISFPAIQAAP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        228 DINKTFIFSDLDYMGMSSGFYKNVVKIQKHVTFNQVKGIFGFTDSDCIGKISFPAIQAAP 287

Qy        241 SFSNSFPQIFRDRTDIQCLIPCAIDQDPYFRMTRDVAPRIGYPKPALLHSTFFPALQGAQ 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        288 SFSNSFPQIFRDRTDIQCLIPCAIDQDPYFRMTRDVAPRIGYPKPALLHSTFFPALQGAQ 347

Qy        301 TKMSASDPNSSIFLTDTAKQIKTKVNKHAFSGGRDTIEEHRQFGGNCDVDVSFMYLTFFL 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        348 TKMSASDPNSSIFLTDTAKQIKTKVNKHAFSGGRDTIEEHRQFGGNCDVDVSFMYLTFFL 407

Qy        361 EDDDKLEQIRKDYTSGAMLTGELKKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLS 420
              |||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        408 EDDDKLEQIRKDYTSGRMLTGELKKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLS 467

Qy        421 FDFQ 424
              ||||
Db        468 FDFQ 471
```

RESULT 9
AAG79549
ID AAG79549 standard; Protein; 401 AA.
XX
AC AAG79549;
XX
DT 10-DEC-2002 (first entry)
XX
DE TrpRS T1 polypeptide.
XX
KW T2; tryptophanyl-tRNA synthase; TrpRS; ocular neovascularisation;
KW neovascular eye disease; age-related macular degeneration;
KW ocular complication; diabetes; rubeotic glaucoma; retinopathy;
KW prematurity; keratitis; ischaemic retinopathy; sickle cell;
KW pathological myopic; ocular histoplasmosis; pterygia; T1;
KW punitate innerchoroidopathy; retinal degeneration; growth factor;
KW vascularisation; vascular endothelial cell function; angiogenesis.
XX
OS Homo sapiens.
XX
PN WO200267970-A1.
XX
PD 06-SEP-2002.
XX
PF 22-FEB-2002; 2002WO-US05185.
XX
PR 23-FEB-2001; 2001US-270951P.
XX
PA (SCRI) SCRIPPS RES INST.
XX
PI Schimmel P, Wakasugi K, Friedlander M;
XX
DR WPI; 2002-698635/75.
XX
PT New polypeptides derived from human tryptophanyl-tRNA synthase, useful
PT for inhibiting ocular neovascularization in a patient, or for treating
PT neovascular eye diseases, e.g. rubeotic glaucoma, retinopathy,
PT keratitis, or pterygia -
XX
PS Example 1; Page 78-79; 83pp; English.
XX
CC This sequence represents a novel cleavage product, T1, of
CC recombinant human tryptophanyl-tRNA synthase (TrpRS). A related
CC cleavage product, T2, is water soluble and comprises residues 94-471
CC of full length TrpRS. The water-soluble T2 polypeptide is useful for
CC inhibiting ocular neovascularisation in a patient. The T2 polypeptide
CC is useful for treating neovascular eye diseases, e.g. age-related macular
CC degeneration, ocular complications of diabetes, rubeotic glaucoma,
CC retinopathy of prematurity, keratitis, ischaemic retinopathy (e.g.
CC sickle cell), pathological myopic, ocular histoplasmosis, pterygia, or
CC punitate innerchoroidopathy. This polypeptide is particularly useful
CC for treating retinal degeneration to prevent the damaging effects of
CC trophic and growth factors, and for promoting vascularisation to retard
CC retinal degeneration by enhancing blood flow to cells. These are also
CC useful for regulating vascular endothelial cell function, and in
CC particular, for inhibiting angiogenesis.
XX
SQ Sequence 401 AA;

Query Match 94.2%; Score 2116; DB 23; Length 401;
Best Local Similarity 100.0%; Pred. No. 1.4e-208;
Matches 401; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy         24 SNHGPDATEAEEDFVDPWTVQTSSAKGIDYDKLIVRFGSSKIDKELINRIERATGQRPHH 83
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 SNHGPDATEAEEDFVDPWTVQTSSAKGIDYDKLIVRFGSSKIDKELINRIERATGQRPHH 60

Qy         84 FLRRGIFFSHRDMNQVLDAYENKKPFYLYTGRGPSSEAMHVGHLIPFIFTKWLQDVFNVP 143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 FLRRGIFFSHRDMNQVLDAYENKKPFYLYTGRGPSSEAMHVGHLIPFIFTKWLQDVFNVP 120

Qy        144 LVIQMTDDEKYLWKDLTLDQAYGDAVENAKDIIACGFDINKTFIFSDLDYMGMSSGFYKN 203
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LVIQMTDDEKYLWKDLTLDQAYGDAVENAKDIIACGFDINKTFIFSDLDYMGMSSGFYKN 180

Qy        204 VVKIQKHVTFNQVKGIFGFTDSDCIGKISFPAIQAAPSFSNSFPQIFRDRTDIQCLIPCA 263
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 VVKIQKHVTFNQVKGIFGFTDSDCIGKISFPAIQAAPSFSNSFPQIFRDRTDIQCLIPCA 240

Qy        264 IDQDPYFRMTRDVAPRIGYPKPALLHSTFFPALQGAQTKMSASDPNSSIFLTDTAKQIKT 323
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IDQDPYFRMTRDVAPRIGYPKPALLHSTFFPALQGAQTKMSASDPNSSIFLTDTAKQIKT 300

Qy        324 KVNKHAFSGGRDTIEEHRQFGGNCDVDVSFMYLTFFLEDDDKLEQIRKDYTSGAMLTGEL 383
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 KVNKHAFSGGRDTIEEHRQFGGNCDVDVSFMYLTFFLEDDDKLEQIRKDYTSGAMLTGEL 360

Qy        384 KKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLSFDFQ 424
              |||||||||||||||||||||||||||||||||||||||||
Db        361 KKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLSFDFQ 401
```

RESULT 10
AAB47617
ID AAB47617 standard; Protein; 415 AA.
XX
AC AAB47617;
XX